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There Is No AI Shortcut to Education

By Daniel Guernsey, Ed.D.

Educational optimists predict that artificial intelligence, or “AI,” will soon provide amazing efficiencies and progress in teaching and learning. But are efficiency and machine logic what our students need most?

It’s certainly true that AI is a marvelous new tool dramatically transforming human life. AI is exponentially improving in speed and scope to recognize patterns in immensely complex data sets of all types, allowing it to make uncanny predictions about what might come next in a sequence, be it a purchase from a customer, a word in a sentence, a sound in spoken language, or countless other processes. AI can answer specific complex questions or perform intricate calculations at a rate impossible for the human mind to comprehend, let alone compete with. It can also generate images and speech which not only mimic reality but surpass it to meet programmed standards of excellence.

However helpful these may be to adults seeking to improve productivity and processes, it is also prudent to follow G.K. Chesterton’s advice, that children ought not be subjected to educational projects and ideas younger than they are. Allowing students to dodge traditional learning methods with AI will have uncertain and potentially harmful results. The same could be true of educators’ dependence on AI for student assessment and lesson planning. In education at least, it is quite possible that AI will work against natural human development and provide not a shortcut to human formation but a short circuit.

Why Students Might Think of AI As a Shortcut

For students inclined to see homework as burdensome or useless, AI is now a tempting shortcut. AI can instantly answer most calculations and informational homework assignments including “show your work” complex math and science problems, and it can aid the writing of unique history or literature papers. AI is a transformative hack to game the homework system. Even so, some pedagogues celebrate this possible dismantling of conventional homework in the hopes that rote learning or linear thinking will no longer be assigned. Teachers will be forced to focus on developing assignments that are personalized and promote “critical thinking” and “authentic learning.”

Why This Thinking Is Really a Short Circuit

While developing creative and effective homework assignments should be encouraged, educators cannot short-circuit the complete learning process by giving up on requiring students to engage in rote learning and writing assignments, even if some students cheat with AI.

The hard work of instilling facts and information into the human brain and developing complex neural pathways step-by-step still needs to happen. It is not time-efficient to throw out homework altogether. Teachers should integrate some AI speedbumps into homework such as breaking the writing process into multiple submissions that each require peer or teacher feedback, creating more in-class writing assignments and oral presentations, etc., but they should not simply throw out most homework thereby restricting educational time. Students still need to learn prudent use of time and the development of academic skills and virtue which are part and parcel of traditional homework.

Homework in this sense might be viewed as something akin to practicing a musical instrument: A music teacher assigns practice at home, even if the student ignores or cheats in the practice sessions. There simply is no shortcut (technological or otherwise) to the human need to toil through the learning process, if the goal is freedom to play an instrument or earn a living as a musician. Few are interested in listening to a player-piano, but many will take time to listen to a fully formed musician who, after years of memorization and practice, is now free to creatively contribute their complex and personally unrepeatable humanity to the musical occasion. The world of AI requires us to focus even more on cultivating distinct human genius, compassion, insight, and creativity.

Because homework can be easily falsified, educators must be explicit in showing students and their parents how such deception and sloth short-circuits authentic learning and human development. It can lead to a person's real demise in a world where AI will be in constant and growing competition with their individual livelihood. Self-replacing personal development with AI may fool the teacher but may result in the student's inability to compete against AI with future employers. It is a student's complete human development which will be their competitive advantage against AI job replacement in the future.

The use of generative AI to produce writing, which one then presents fully or even partially as one's own, is particularly problematic. It is plagiarism and lying unless fully disclosed. It also weakens thinking, because writing is a type of explicit thinking. Writing assignments at their best require students to engage in multiple levels of critical thinking including synthesis, evaluation, and creativity. Students need extensive practice to develop these profoundly important human skills. We have students write essays on history and literature, not to generate new knowledge for the human species but to develop their own knowledge, understanding, and cognitive power. If they get initial essays and ideas from generative AI they will stymie their own generative capabilities.

Additionally, the AI homework short-circuit deprives a student of the value of their teacher. A teacher uses homework and, especially writing, as one tool among many to gain clear insight into a student's real thinking and processing to assist the student in properly interacting with, interpreting, and valuing what is before them. Any deception in this process does great harm on multiple levels. There is no short-circuiting of the educational process, especially the writing process, without harm.

Why Educators Might Think of AI As a Shortcut

Some educators can be bedazzled by AI's tremendous capability for analyzing student data. AI assisted by standardized test results can establish a student's reading or math level and decide what instruction, texts, or problem sets should come next. AI can also be programmed to give students hints as opposed to the final answer in answering questions. It can even predict where errors in thinking may have occurred and offer tailored intervention and practice in that area. It can seem like the ultimate personalized teacher, who is not distracted by other students and has access to unlimited, perfectly tailored resources. As a bonus, teachers assisted by AI may have even more time to be a "guide on the side," with less time grading and lesson planning.

Why This Thinking Is Really a Short Circuit

This apparent "win-win" for the virtual-headset-wearing members of "Plato's Cave Academy" is really a short circuit. Teaching and learning are such fundamental and intimate human-to-human processes that farming out significant elements of human formation to computers is quite literally inhuman.

Humans are social animals who learn best socially, in person, and in relationships. This was made abundantly and tragically clear during the COVID school shutdowns. The academic, social, and psychological damage of isolating students on screens has lasting negative consequences. A child who is fortunate enough to have access to a healthy functioning classroom and school reaps great rewards in total human development. The fact that these conditions may be increasingly rare does not merit jettisoning the community-schooling paradigm for the cost-effective, targeted, and quick efficiency of machine-generated teaching and learning.

Students typically find joy, bonding, and inspiration if surrounded by healthy and supportive classmates and a caring and wise teacher. Doing hard human stuff side-by-side with other humans is what students are wired for and can make the difficult delightful. Learning conducted as human play and human exchange is also essential to motivation and learning, as titillating as computer-based learning games may be. Isolating students on screens where they work at their own pace deprives students of the benefit of watching peers attempting to do similar things and adjusting or confirming their own efforts in response. They witness approaches that they might not otherwise have imagined and bond with fellows in a common project of discovery or skill mastery. This is tremendously satisfying and makes school a joy!

Additionally, the teacher is tasked with instruction through modeling a human passion for engaging with truth, beauty, and goodness wherever it arises, manifesting a rich spirituality, and showing deep care and compassion for others. This has a profound impact on student learning, happiness, well-being, and a healthy disposition toward all that is being studied and fellow students. AI cannot look a student in the eye, smile, act with integrity, and model lived virtue. And AI cannot love the student. Nor can it teach the student to do these things. A real teacher, absent screens and mediators, can write on a child's soul and inspire them to greatness.

The teacher is also a model and source of real human learning by their encouragement and affirmation for the student, who at times struggles and at times makes spectacular breakthroughs—both of which are access points of human intimacy in the face of despair or joy and therefore demand real human response. Despondency and cynicism result when human experiences are isolated, unrecognized by other humans, or simply materialized in data sets.

It is just not right, on a regular rather than occasional basis, to have a young child read to a computer to be analyzed and instructed rather than reading to and with another a human. Perhaps it may save time and provide individualized data, but this computerized “personalization” can actually depersonalize the instruction, as it removes the teacher from the process. And besides, what is time for, if not listening to children read?

And, of course, reading is much more than sounding at words and getting right responses about linear or discrete text-based questions, which are at the heart of computer-based instruction. Students are taught to read because they are human beings who love to share stories and insights with each other. They are also spiritual beings made to seek and know the truth, act upon it, and share it with others. Reading helps them transcend themselves, their time, their experience, and their culture. It helps them discover transcendent meaning of things and view the world from another's perspective.

This being said, there is room for providing drills and problem sets based on student interface with AI at home. The data from such AI-informed and tracked home-drills can be used by the instructor to guide in-person instruction. What needs to be protected is the authentic interaction which the school classroom provides.

The Dispiriting Nature of AI

As the excitement of AI dissipates and its numbing and dispiriting effects take hold of more and more people, jaded souls may fall into despair. The lack of human contact, lack of reality, inability to attain true beauty when left with AI-generated avatars and robots, inability to match AI-generated speed and perfection, and inability to compete with AI for employment will be devastating for many. Added to this, carefully crafted and monetized AI experiences such as immersive games and other entertainment specifically tailored by AI to personal desires and weaknesses will flood human senses and their lives, seeming to cover the pain and lack of true happiness, and worse yet, eliminating the sense that this unreality should cause them pain at all.

Wise parents will understand that radical recent changes in technology mean that now, more than ever, screen time and technology are direct threats to their children and their well-being. There is no benefit to introducing children to AI. The whole purpose of AI is to make interfacing with technology seamless, so there is no danger that children who do not use AI now will somehow not be able to use it productively in the future.

Educators and parents need to prevent children from becoming trapped in addictive, unreal worlds. The response to this threat should be dramatic and counter unreality with reality, at every opportunity. Children need to be at home in the real world. It is a world made for them, for their happiness, and for their work by a loving God. Educators must guide them in seeking and ascribing authentic meaning to those flawed but real experiences that make up the real world. Educators must reject anything which threatens their mind/body/spirit unities, including errant human sexual ideologies. Students need to be re-embodied and re-integrated with themselves and the natural/real world, and re-enchanted with the beauty and meaning present in all things, instilled by and delighted in by God, their creator, and in whose image they are made.

The Quest for the Authentically Human

AI is an adult tool which can unlock immense possibilities and creative resources. It can be of use to educators in their own research, development of materials, analysis of data, and administrative duties, but it does not belong in any direct, sustained way in the teacher-student relationship.

Now is the time to re-embrace the humanities in education. Those human actors with rich literary, historical, philosophical, theological, and psychological training will be best suited to succeed in a competitive AI-controlled market. In the end, most problems in the workforce will remain “people problems,” and human creativity in all its uniqueness will be even more prized. Those individuals who are creative and who are best able to understand and help people and people-based challenges will always be needed and appreciated. A goal of educators at this point should be to maximize reality-based experiences for students and their unique human potentialities. It is these fully formed and trained memories, minds, imaginations, and wills which will act upon the new and unpredictable opportunities AI is beginning to create for them.

Students need to organically perfect their humanity, as technology de-humanizes it. Un-mediated access to the greatest human accomplishments, presented and discussed by other humans who know and love them—even with their blemishes and misshapeness—is what students love and what will help them to love learning and indeed to love each other.

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